

CLAIMS

- 5 *Set A-3* 1. A sandwich material comprising two metal plates which are affixed to and separated by a fibrous core, characterised in that the core comprises a three-dimensional porous network comprising metal fibres, wherein substantially all of the fibres are inclined at an acute angle (θ) to the plates.
- 10 2. A sandwich material according to claim 1, wherein the metal fibres are bonded together at crossover points within the network.
- 15 *Set A-4* 3. A sandwich material according to claim 1, or claim 2, wherein the metal plates and the metal fibres comprise metals independently selected from stainless steel, steel, aluminium and titanium.
4. A sandwich material according to claim 3, wherein the metal plates and the metal fibres comprise stainless steel or aluminium.
- 20 5. A sandwich material according to any preceding claim, wherein the plates are affixed to the fibrous core by means of a braze.
- 25 *Set A-5* 6. A sandwich material according to any of claims 1 to 4, wherein the plates are affixed to the fibrous core by means of an adhesive.
7. A sandwich material according to any preceding claim, wherein the fibres in the core are randomly orientated.
8. A sandwich material according to any preceding claim, wherein θ is less than 60° .
- 30 9. A sandwich material according to any preceding claim, wherein the average diameter of the fibres is less than 500 μm .
10. A sandwich material according to any preceding claim, wherein the total thickness of the material is 0.5mm - 1 cm.
- 35 11. A sandwich material according to any preceding claim, wherein the fibres occupy 5-50 volume% of the core.

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